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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,210	03/04/2002	Shinichi Nishizawa	75120-030-2	6903

25269 7590 05/15/2007
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EXAMINER

GUILL, RUSSELL L

ART UNIT	PAPER NUMBER
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2123

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/087,210

Applicant(s)

NISHIZAWA ET AL.

Examiner

Russ Guill

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to a Request for Continued Examination filed March 22, 2007. Claim 23 was previously canceled. Claim 24 was added. Claims 1 - 22 and 24 are pending. Claims 1 - 22 and 24 have been examined. Claims 1 - 22 and 24 have been rejected.

2. As recited in the previous Office Action, the Examiner would like to thank the Applicant for the well-presented response, which was useful in the examination process.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 22, 2007 has been entered.

Response to Remarks

4. Regarding claims 16 - 18 rejected under 35 USC § 112, second paragraph:
- a. Applicant's claim amendments overcome the rejections of claims 16 and 18, however, the amendments have caused a further objection of claim 18 described below, and further rejections under 35 USC § 112, first paragraph, described below.

5. Regarding claims 1 - 18 rejected under 35 USC § 101:
 - a. Applicant's claim amendments overcome the rejections, however, the specification does not appear to have support for generating a report or displaying a derived spring design.
6. Regarding claims 1 - 18 rejected under 35 USC § 103:
 - a. Applicant's arguments have been fully considered, and are persuasive. Accordingly, the rejections are withdrawn. However, a new rejection on art has been issued for independent claim 19 as described below, but the details of dependent claim 20 are not addressed by the art.

Claim Objections

7. Claims 15 and 18 are objected to for the following minor informalities:
 - a. The claims refer to the acronym "FEM" without defining the term in the claim.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
9. Claims 1 - 18 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

a. Regarding claim 1, the claim recites, "generating a report of the derived spring design", which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

b. Regarding claim 4, the claim recites, "generating a report of the derived spring design", which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

c. Regarding claim 24, the claim recites, "displaying the derived spring design", which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

d. Claims 2 - 3 and 5 - 18 are rejected based on its dependency on its respective intermediate and parent claims which are rejected under 35 U.S.C. 112, first paragraph.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

a. **Claims 1 - 22 and 24** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

i. Regarding claim 1, the claim recites in line 7, "measuring torques". It is unclear what torques are being measured. For example, the claim would allow the torques of the crankshaft to be measured.

ii. Regarding claim 4, the claim recites in line 15, "the derived spring design". The term appears to have insufficient antecedent basis. For the purpose of claim examination, the phrase is interpreted as, "a derived spring design".

iii. Regarding claim 19, the claim recites in line 1, "An apparatus for modeling a coil spring". It is unclear how the limitations of the claim satisfy "modeling a coil spring". For the purpose of claim examination, the phrase is interpreted as, "An apparatus for simulating a coil spring".

iv. Regarding claim 24, the claim recites in line 7, "measuring torques". It is unclear what torques are being measured. For example, the claim would allow the torques of the crankshaft to be measured.

v. Claims 2 - 3, 5 - 18, 20 - 22 and 24 are rejected based on its dependency on its respective intermediate and parent claims which are rejected under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palazzetti (U.S. Patent Number 3,770,292), in view of Delorenzis (U.S. Patent Number 6,293,530).

- a. The art of Palazzetti is directed to electronic control for vehicle suspension systems, including a hydropneumatic suspension (Abstract).
- b. The art of Delorenzis is directed to a liquid spring system for vibration control in vehicles (Abstract).
- c. The art of Palazzetti and the art of Delorenzis are analogous art because they are both directed to the art of active suspension for vehicles.
- d. Regarding claim 19:
- e. Palazzetti appears to teach:

- f. A force field generator for simulating a spring (figure 1, element 20, and figure 2, and Abstract, last sentence), said force field generator secured in a suspension system (figure 1 and figure 2), and means for activating the force field generator to produce forces therein (figure 1, figure 2, and columns 3 - 6).
- g. Palazzetti does not specifically teach (in **bold, italic, underline**):
- h. Means for activating the force field generator to produce forces therein **for characterizing the spring**.
- i. Delorenzis appears to teach:
- j. a force field generator to produce forces therein for characterizing a spring (column 13, lines 25 - 31).
- k. The motivation to use the art of Delorenzis with the art of Palazzetti would have been the benefits recited in Delorenzis including the important advantage that vehicle stabilizer bars can be eliminated (column 10, lines 20 - 25).
- l. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Delorenzis with the art of Palazzetti to produce the claimed invention.

Art Unit: 2123

14. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Allowable Subject Matter

15. Any indication of allowability is withheld pending resolution of the outstanding rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russ Guill whose telephone number is 571-272-7955.

The examiner can normally be reached on Monday - Friday 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

Russ Guill
Examiner
Art Unit 2123



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